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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/622,343	08/16/2000	Christopher John Gibbings	36-1346	3365
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Noxon & Vanderhye 8Th floor 1100 North Glebe Road Arlington, VA 22201-4714				
			EXAMINER PEZZLO, JOHN	
			ART UNIT 2662	PAPER NUMBER

DATE MAILED: 03/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/622,343

Applicant(s)

GIBBINGS, CHRISTOPHER JOHN

Examiner

John Pezzlo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 August 2000.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

I. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Conoscenti et al. (US 5,627,836) hereinafter Conoscenti.

1. Regarding claim 1 – Conoscenti discloses a data transport system comprising a head end router (VIP #1 callout 210 in Figure 7A and HDT callout 230 in Figure 7B) coupled to a data source (VIP ID 1001 callout 212 in Figure 7A) a plurality of downstream routers (HDT callout 230 in Figure 7B) each for connection to at least one addressable site (VIU premises callout 236 in Figure 7B) and each coupled to the head end router by a high bandwidth forward data path (ATM downlink callouts 229, 233, 240 in Figures 7A and 7B), each of the downstream routers being connectable by a switchable low bandwidth return path (X.25 from the VIU to the ATM switch via the X.25 network callout 246 in Figure 7B), the head end router selecting the return control path from downstream routers by causing set-up of the respective return path to one of the downstream routers, refer to Figures 7A and 7B and column 14 line 60 to column 21 line 62.

2. Regarding claim 2 – Conoscenti discloses the remote site user addresses are selected such that all of the remote sites being served by the HDT are on a single subnet for the forward path, X.25, refer to Figures 7A and 7B and column 14 line 60 to column 21 line 62.

3. Regarding claim 3 – Conoscenti discloses the user addresses are selected such that all of the remote sites being served are on a single subnet for the switchable return data path, X.25, refer to Figures 7A and 7B and column 14 line 60 to column 21 line 62.

4. Regarding claim 4 – Conoscenti discloses the high bandwidth forward data path is an ATM PVC, the VPI/VCI is maintained throughout the network without translation and not torn down, refer to column 2 line 50 to column 3 line 46 and column 4 lines 45 to 61 and column 12 line 37 to column 13 line 58 and column 26 line 57 to column 27 line 11.

5. Regarding claim 5 – Conoscenti discloses the PVC includes at least in part a link through a satellite broadcast channel, refer to Figure 7A and column 1 lines 11 to 23 and column 2 line 50 to column 3 line 46 and column 4 lines 45 to 61 and column 12 line 37 to column 13 line 58 and column 15 lines 40 to 52.

6. Regarding claim 6 – Conoscenti discloses that the switchable return path in a PSTN path, the use of a local loop and off-hook indicators which is the PSTN, refer to column 27 lines 11 to 33 and column 29 lines 15 to 31 and column 30 lines 15 to 56.

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II. Claims 8-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Carr et al. (US 5,608,446) hereinafter Carr.

1. Regarding claim 8 – Carr discloses a head end router (callout 42 in Figure 1) coupled to an ATM PVC, refer to Figure 1 and column 2 lines 59 to 67 and column 3 lines 1 to 10.

Carr discloses a PSTN modem (callout 54 in Figure 1) coupled to the head end router, refer to column 3 line 65 to column 4 line 45.

Carr discloses a plurality of downstream routers (callout 30 in Figure 1) each coupled to the ATM PVC via respective ATM interfaces, refer to Figure 1 and column 2 lines 59 to 67 and column 3 lines 1 to 10.

Carr discloses a plurality of downstream PSTN modems (callout 76 in Figure 1) each coupled to a respective downstream router via a respective serial interface (Ethernet), each ATM interface of each respective downstream router being allocated, in use, a respective IP address in a single subnet, and each serial interface of each respective downstream router being allocated, in use, a respective IP address in a single subnet, refer to Figures 3 and 4 and column 5 line 48 to column 7 line 55.

2. Regarding claim 9 – Carr discloses each downstream router is arranged to receive data from the head end router via the same ATM PVC, single access connected to the gateway, refer Figure 1 and column 2 line 59 to column 3 line 44.

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3. Regarding claim 10 – Carr discloses the head end router includes a modem address mapping table operable to map the IP address of each of the said serial interfaces to the respective downstream PSTN modem to which each serial interface is connected, refer to Figures 2 and 6 and 7 and 8 and 9 and 10 and 11 and 12 and 13 and 14 and column 5 lines 14 to 47 and column 7 line 58 to column 8 line 27 and column 13 line 60 to column 14 line 64 and column 16 line 28 to column 17 line 62.

4. Regarding claim 11 – Carr discloses the head end router is arranged to cause the head end PSTN modem to establish a connection with a predetermined one of the downstream PSTN modems when a predetermined activation packet is received by the head end router for routing to the IP address of one of the serial interfaces, refer to Figures 2 and 6 and 7 and 8 and 9 and 10 and 11 and 12 and 13 and 14 and column 5 lines 14 to 47 and column 7 line 58 to column 8 line 27 and column 13 line 60 to column 14 line 64 and column 16 line 28 to column 17 line 62.

5. Regarding claims 12 and 17 – Carr discloses the predetermined activation packets are supplied to the head end router according to a predetermined timetable, refer to Figures 2 and 6 and 7 and 8 and 9 and 10 and 11 and 12 and 13 and 14 and column 5 lines 14 to 47 and column 7 line 58 to column 8 line 27 and column 13 line 60 to column 14 line 64 and column 16 line 28 to column 17 line 62.

6. Regarding claim 13 – Carr discloses the head end router includes an ATM address mapping table operable to map the IP address of each of the said ATM interfaces to a

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predetermined ATM VCI and VPI, refer to Figures 1 and 7 and 8 and 9 and 10 and 11 and 12 and 13 and 14 and column 2 lines 59 to 67 and column 3 lines 1 to 10 and column 13 line 60 to column 14 line 64 and column 16 line 28 to column 17 line 62.

7. Regarding claim 14 – Carr discloses establishing an asymmetric data connection comprising establishing a unidirectional ATM connection between a head end router and a plurality of downstream routers all of the downstream routers being connected to the head end router via the same PVC, refer to Figure 1 and column 2 lines 59 to 67 and column 3 lines 1 to 44.

Carr discloses receiving a predetermined activation packet and extracting connection information from a modem mapping table using the IP address to index the table and dialing the PSTN modem using the connection information in order to establish a return data connection over the PSTN between the head router and the downstream router, refer to Figures 2 and 6 and 7 and 8 and 9 and 10 and 11 and 12 and 13 and 14 and column 5 lines 14 to 47 and column 7 line 58 to column 8 line 27 and column 13 line 60 to column 14 line 64 and column 16 line 28 to column 17 line 62.

8. Regarding claims 15 and 16 – Carr discloses the ATM interfaces of the downstream routers are allocated respective IP addresses in a common subnet and the modem interfaces of the downstream routers are allocated respective IP addresses in a common subnet, refer to Figures 2 and 6 and 7 and 8 and 9 and 10 and 11 and 12 and 13 and 14 and column 5 lines 14 to

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47 and column 7 line 58 to column 8 line 27 and column 13 line 60 to column 14 line 64 and column 16 line 28 to column 17 line 62.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

III. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Conoscenti (same as above) in view of Virgile (US 5,608,726).

1. Regarding claim 7 – Conoscenti discloses a head end router providing a PVC to route messages to a remote addressed site, refer to Figures 7A and 7B and column 14 line 60 to column 21 line 62.

Conoscenti does not expressly disclose a tunnel which encapsulates the multicast packet and routes the packet from the head end to the remote site.

Virgile discloses multicasting packets using a routing table, refer to Figure 4 and column 7 line 50 to column 8 line 13.

At the time of the invention, it would have been obvious to an ordinary person skilled in the art to utilize a tunnel to route multicast packets to the remote sites since the ATM protocol



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utilizing PVC's doesn't support multicasting, the alternative is to provide a tunnel to encapsulate the multicast packet in the tunnel (ATM PVC), in order to route the packet to the remote sites, the benefit being the multicast packets are routed utilizing existing network connections reducing overhead and conserving resources.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Blahut et al. (US 6,065,061) discloses an Internet protocol based network architecture for cable television access with switched fallback.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Pezzlo whose telephone number is (703) 306-5420. The examiner can normally be reached on from 8:30 AM to 4:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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Washington, D.C.

or faxed to:

(703) 872-930 For informal or draft communications, please label "PROPOSED" or "DRAFT"

Hand delivered responses should be brought to:

Receptionist (Sixth floor)


Crystal Park 2

2121 Crystal Drive

Arlington, VA.

John Pezzlo

10 March 2004

  
JOHN PEZZLO  
PRIMARY EXAMINER